NON-PUBLIC?: N
ACCESSION #: 9103260216
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Millstone Nuclear Power Station Unit 2 PAGE: 1 OF 2

DOCKET NUMBER: 05000336

TITLE: Unexpected Trip of 'B' S/G/ Feed Pump and Subsequent Manual Rx Trip
EVENT DATE: 02/16/91 LER #: 91-004-00 REPORT DATE: 03/18/91

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: John L. Criscione, Ext. 4314 TELEPHONE: (203) 447-1791

COMPONENT FAILURE DESCRIPTION:

CAUSE: B SYSTEM: SJ COMPONENT: P MANUFACTURER: G084
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On February 16, 1991, with the unit operating at 100% power, the 'B' Steam Generator Feed Pump (SGFP) unexpectedly tripped at 1731 hours. The pump was reset and the speed of the 'A' SGFP was raised from 4430 to 5100 RPM. As the 'B' SGFP was accelerated, it caused low suction pressure for both pumps. The 'B' SGFP tripped again, was reset, tripped and reset again. The 'A' and 'B' pump suction pressures again alarmed low. The 'A' SGFP then tripped. Low level alarms occurred in both steam generators. At 1733 hours, the reactor was manually tripped because of decreasing SG levels. The cause of the initial 'B' SGFP trip is unknown.

END OF ABSTRACT

I. Description of Event

On February 16, 1991, with the unit operating at 100% power, the 'B' Steam Generator Feed Pump (SGFP) unexpectedly tripped at 1731 hours. The pump was reset and the speed of the 'A' SGFP was raised from 4430 to 5100 RPM. As the 'B' SGFP was accelerated, it caused low suction pressure for both pumps. The 'B' SGFP tripped again, was reset, tripped and reset again. The 'A' and 'B' pump suction pressures again alarmed low. The 'A' SGFP then tripped. Low level alarms occurred in both steam generators. The 'A' SGFP was then reset. At 1733 hours, the reactor was manually tripped because of decreasing SG levels. Operators performed EOP 2525, "Standard Post Trip Actions" and EOP 2526, "Reactor Trip Recovery". Steam Generator levels were restored using the running 'A' SGFP per procedure.

II. Cause of Event

The cause of the initial 'B' SGFP trip is unknown. There is no first hit trip system and no alarms were present prior to the 'B' SGFP trip which would have indicated an unusual condition. Under normal SGFP trip scenarios, pre-trip alarms or degrading plant conditions are expected.

The cause of the subsequent 'A' and 'B' SGFP trips was most likely from low suction pressure or low flow by the 'A' SGFP running at 5100(+) RPM while the 'B' SGFP was returning to speed.

Immediate follow-up activities:

- The 'B' SGFP was reset and run and the trip system was successfully tested.

- All SGFP trips and alarms were tested with no discrepancies found.

III. Analysis of Event

This report is being submined pursuant to the requirements of 10CFR50.73(a)(2)(iv), "any event or condition that resulted in the manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS)". There were no safety consequences resulting from this event since normal post trip procedures were followed and all safety systems functioned to restore the unit to a stable condition.

IV. Corrective Action

No corrective action was taken to resolve the 'B' SGFP trip because the root cause is unknown. However, the following actions were taken:

- Monitoring capability was added to the SGFP circuitry to differentiate between a mechanical or electrical fault for any future events.

- A Plant Design Change was initiated to add a first hit monitoring system to the SGFP circuit.

- While existing procedures had no direct bearing on the feed pump recovery, the alarm section of OP 2321, Feedwater System, was revised to assist the operators in restoration of a tripped feed pump and prevent any followup trips. All shifts have been trained in these procedure changes.

V. Additional Information

Similar LER's: 87-002, 87-011, 87-009, 87-012.

ATTACHMENT 1 TO 9103260216 PAGE 1 OF 1

NORTHEAST UTILITIES
The Connecticut Light And Power Company
Western Massachusetts Electric Company
Holyoke Water Power Company
Northeast Utilities Service Company
Northeast Nuclear Energy Company

General Offices Selden Street, Berlin Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06414-0270
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Re: 10CFR50.73(a)(2)(iv)
March 18, 1991
MP-91-241

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Licensee Event Report 91-004-00

Gentlemen:

This letter forwards Licensee Event Report 91-004-00 required to be submitted within thirty (30) days pursuant to paragraph 50.73(a)(2)(iv).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Director, Millstone Station

SES/JLC:mo

Attachment: LER 91-004-00

cc: T. T. Martin, Region I Administrator
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2

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